

AMENDMENTS

In the Claims

Claim 15 was previously canceled.

Please cancel claims 18-20, 24, 44, 56-60, 62-65, 67, and 69 without prejudice.

Please amend claims 1, 21, 26, 42-43, 45, 49, and 61 as shown herein.

Claims 1-14, 16-17, 21-23, 25-43, 45-55, 61, 66, and 68 are pending and listed following:

1. **(currently amended)** A method, comprising:
 - receiving audio content from one or more sources;
 - providing an audio content component for each source of audio content;
 - audio content component generating event instructions from the received content;

processing the event instructions to produce audio instructions;
providing audio rendition managers that each correspond to an audio
rendition, an audio rendition manager including a synthesizer component, audio
buffers, and logical buses that each correspond to one of the audio buffers; and
routing the audio instructions to the audio rendition managers that process
the audio instructions to render the corresponding audio renditions;

processing the audio instructions with the synthesizer component to generate multiple streams of audio wave data;

assigning each of the multiple streams of audio wave data to one or more of the logical buses where a logical bus receives one or more of the streams of audio wave data from the synthesizer component; and

routing audio wave data streams assigned to a particular logical bus to the audio buffer corresponding to said particular logical bus.

2. (original) A method as recited in claim 1, wherein each audio content component is a component object having an interface that is callable by a software component, the software component directing said generating the event instructions.

3. (previously presented) A method as recited in claim 1, wherein each audio rendition manager is a component object having an interface that is callable by a software component, the software component performing said routing the audio instructions to the audio rendition managers.

4. (previously presented) A method as recited in claim 1, further comprising providing a software component, wherein each audio content component is a component object having an interface that is callable by the software component, the software component directing said generating the event instructions, and wherein each audio rendition manager is a component object having an interface that is callable by the software component, the software component performing said routing the audio instructions to the audio rendition managers.

1 5. (previously presented) A method as recited in claim 1, further
2 comprising providing a performance manager that performs said providing an
3 audio content component for each source of audio content, and performs said
4 providing the audio rendition managers that each correspond to an audio rendition.

5
6 6. (previously presented) A method as recited in claim 1, the
7 method further comprising providing a performance manager as a component
8 object that performs said providing an audio content component for each source of
9 audio content, and performs said providing the audio rendition managers.

10
11 7. (previously presented) A method as recited in claim 1, further
12 comprising providing a performance manager as a component object, wherein
13 each audio content component is a component object having an interface that is
14 callable by the performance manager, the performance manager directing said
15 generating the event instructions, and wherein each audio rendition manager is a
16 component object having an interface that is callable by the performance manager,
17 the performance manager performing said routing the audio instructions to the
18 audio rendition managers.

19
20 8. (original) A method as recited in claim 1, further comprising
21 providing a performance manager that performs said receiving the audio content,
22 providing an audio content component for each source of audio content,
23 processing the event instructions, and routing the audio instructions.

1 9. (previously presented) A method as recited in claim 1, further
2 comprising providing a performance manager that performs said receiving the
3 audio content, providing an audio content component for each source of audio
4 content, processing the event instructions, providing the audio rendition managers,
5 and routing the audio instructions.

6
7 10. (original) A method as recited in claim 1, wherein the audio
8 content includes digital audio samples.

9
10 11. (original) A method as recited in claim 1, wherein the audio
11 content includes MIDI data.

12
13 12. (original) A method as recited in claim 1, wherein each audio
14 content component has one or more event instruction components that perform
15 said generating the event instructions.

16
17 13. (original) A method as recited in claim 1, wherein each audio
18 content component has one or more event instruction components that perform
19 said generating the event instructions, each event instruction component
20 corresponding to part of the received audio content.

1 **14. (previously presented)** A method as recited in claim 1, further
2 comprising each audio content component generating event instructions and
3 routing the event instructions to the audio rendition managers before said
4 processing the event instructions.

5 **15. (canceled)**

6
7 **16. (previously presented)** A method as recited in claim 1, wherein
8 the audio rendition managers receive audio instructions originating as event
9 instructions from one or more of the audio content components.

10
11 **17. (original)** A method as recited in claim 1, wherein one audio
12 rendition manager receives audio instructions originating as event instructions
13 from one or more of the audio content components.

14
15 **18-20. (canceled)**

1 21. (currently amended) A method as recited in claim 1, wherein
2 said providing an audio rendition manager comprises: providing a the synthesizer
3 component having includes multiple channel groups, each channel group having a
4 plurality of synthesizer channels to receive the audio instructions[[;]], and wherein
5 the audio rendition manager includes providing a mapping component having
6 mapping channels corresponding to the plurality of synthesizer channels;

7 providing audio wave data consumers;

8 defining logical buses that each correspond to one of the audio wave data
9 consumers;

10 the method further comprising:

11 assigning the mapping channels to receive the audio instructions;

12 and

13 routing the audio instructions to a particular synthesizer channel in
14 accordance with the mapping channel assignments;

15 processing the audio instructions with the synthesizer component to
16 generate multiple streams of audio wave data;

17 assigning each of the multiple streams of audio wave data to one or
18 more of the logical buses; and

19 routing audio wave data streams assigned to a particular logical bus
20 to the audio wave data consumer corresponding to said particular logical
21 bus.

1 **22. (original)** One or more computer-readable media comprising
2 computer-executable instructions that, when executed, direct a computing system
3 to perform the method of claim 1.

4
5 **23. (original)** One or more computer-readable media comprising
6 computer-executable instructions that, when executed, direct a computing system
7 to perform the method of claim 7.

8
9 **24. (canceled)**

10
11 **25. (original)** One or more computer-readable media comprising
12 computer-executable instructions that, when executed, direct a computing system
13 to perform the method of claim 21.

1 **26. (currently amended)** A method, comprising:
2 providing a performance manager that performs acts comprising:
3 receiving audio content from one or more sources;
4 providing an audio content component for each source of audio content,
5 each audio content component generating event instructions from the received
6 audio content;

7 processing the event instructions to produce audio instructions;

8 providing audio rendition managers that each correspond to an audio
9 rendition, each audio rendition manager including performing acts comprising:
10 providing a synthesizer component that receives the audio instructions and
11 generates audio wave data, data; providing one or more audio wave data
12 consumers buffers that process the audio wave data[;], and logical buses that
13 each correspond to one of the audio buffers, each audio rendition manager:

14 assigning the audio wave data to one or more of the logical buses that each
15 receive one or more streams of audio wave data from the synthesizer component;
16 and

17 routing the audio wave data assigned to a particular logical bus to the audio
18 buffer corresponding to said particular logical bus routing the audio wave data to
19 render the corresponding audio renditions.

20
21 **27. (original)** A method as recited in claim 26, wherein the
22 performance manager is a component object having an interface that is callable by
23 a software component.

1 **28. (original)** A method as recited in claim 26, wherein the
2 performance manager is a component object, and wherein each audio content
3 component is a component object having an interface that is callable by the
4 performance manager, the performance manager directing said generating the
5 event instructions.

6

7 **29. (original)** A method as recited in claim 26, wherein each audio
8 rendition manager is a component object having an interface that is callable by a
9 software component.

10

11 **30. (original)** A method as recited in claim 26, wherein the
12 performance manager is a component object, and wherein each audio rendition
13 manager is a programming object having an interface that is callable by the
14 performance manager.

15

16 **31. (previously presented)** A method as recited in claim 26, wherein
17 the performance manager is a component object that performs said providing the
18 audio rendition managers, and wherein each audio rendition manager is a
19 component object having an interface that is callable by the performance manager.

20

21 **32. (original)** A method as recited in claim 26, wherein the audio
22 content includes digital audio samples.

1 33. (original) A method as recited in claim 26, wherein the audio
2 content includes MIDI data.

3
4 34. (original) A method as recited in claim 26, wherein each audio
5 content component has one or more event instruction components that perform
6 said generating the event instructions.

7
8 35. (original) A method as recited in claim 26, wherein each audio
9 content component is a component object having an interface that is callable by
10 the performance manager, and wherein each audio content component has one or
11 more event instruction components that are component objects having an interface
12 that is callable by the audio content component, the one or more event instruction
13 components performing said generating the event instructions.

14
15 36. (previously presented) A method as recited in claim 26, further
16 comprising each audio content component generating event instructions, and
17 routing the event instructions to the audio rendition managers before said
18 processing the event instructions.

19
20 37. (previously presented) A method as recited in claim 26, further
21 comprising a particular audio content component generating event instructions,
22 said processing the event instructions to produce audio instructions, and routing
23 the audio instructions resulting from the particular audio content component to the
24 audio rendition managers.

1
2 **38. (previously presented)** A method as recited in claim 26, wherein
3 the audio rendition managers receive audio instructions originating as event
4 instructions from one or more of the audio content components.

5
6 **39. (original)** A method as recited in claim 26, wherein one audio
7 rendition manager receives audio instructions originating as event instructions
8 from one or more of the audio content components.

9
10 **40. (original)** A method as recited in claim 26, wherein the
11 synthesizer component is a component object having an interface that is callable
12 by a software component.

13
14 **41. (original)** A method as recited in claim 26, wherein each audio
15 rendition manager is a component object, and wherein the synthesizer component
16 is a component object having an interface that is callable by the audio rendition
17 manager providing the synthesizer component.

18
19 **42. (currently amended)** A method as recited in claim 26, wherein
20 the one or more audio wave data consumers ~~are~~ audio buffers provided as are
21 component objects, each audio buffer having an interface that is callable by a
22 software component.

1 **43. (currently amended)** A method as recited in claim 26, wherein
2 each audio rendition manager is a component object, and wherein the one or more
3 audio wave data consumers are audio buffers provided as are component objects,
4 each audio buffer having an interface that is callable by the audio rendition
5 manager providing the audio buffer.

6
7 **44. (canceled)**

8
9 **45. (currently amended)** A method as recited in claim 26, wherein
10 said providing a the synthesizer component comprises providing the synthesizer
11 component with includes multiple channel groups, each channel group having a
12 plurality of synthesizer channels that receive the audio instructions, and wherein
13 each audio rendition manager performs acts further comprising: providing
14 includes a mapping component having mapping channels corresponding to the
15 plurality of synthesizer channels, each audio rendition manager;

16 assigning the mapping channels to receive the audio instructions; and
17 routing the audio instructions to the synthesizer channels in accordance
18 with the mapping channel assignments;

19 defining logical buses that each correspond to one of the audio wave data
20 consumers;

21 assigning the audio wave data to one or more of the logical buses; and
22 routing the audio wave data assigned to a particular logical bus to the audio
23 wave data consumer corresponding to said particular logical bus.

1 **46. (original)** One or more computer-readable media comprising
2 computer-executable instructions that, when executed, direct a computing system
3 to perform the method of claim 26.

4
5 **47. (original)** One or more computer-readable media comprising
6 computer-executable instructions that, when executed, direct a computing system
7 to perform the method of claim 31.

8
9 **48. (original)** One or more computer-readable media comprising
10 computer-executable instructions that, when executed, direct a computing system
11 to perform the method of claim 45.

1 **49. (currently amended)** An audio generation system, comprising:

2 a performance manager having an audio content component that generates
3 event instructions from audio content received from one or more sources, the
4 performance manager configured to process the event instructions to produce
5 audio instructions; and

6 audio rendition managers that each correspond to an audio rendition, an
7 audio rendition manager configured to receive the audio instructions and process
8 the audio instructions to render the corresponding audio rendition, the audio
9 rendition manager having processing components including:

10 a synthesizer component having multiple channel groups, each channel
11 group having a plurality of synthesizer channels configured to process the audio
12 instructions to generate audio wave data;

13 a mapping component having mapping channels corresponding to the
14 plurality of synthesizer channels, the mapping component configured to designate
15 the synthesizer channels that receive the audio instructions via the respective
16 mapping channels;

17 one or more audio buffers configured to process the audio wave data; and
18 a multi-bus component that defines logical buses corresponding
19 respectively to the one or more audio buffers, the multi-bus component configured
20 to receive the audio wave data at the defined logical buses, and route audio wave
21 data that is received at a particular logical bus to the audio buffer corresponding to
22 the particular logical bus.

1 **50. (original)** An audio generation system as recited in claim 49,
2 further comprising a second audio rendition manager that corresponds to a second
3 audio rendition, the second audio rendition manager configured to receive the
4 audio instructions and process the audio instructions to render the corresponding
5 second audio rendition.

6
7 **51. (original)** An audio generation system as recited in claim 49,
8 further comprising a second audio rendition manager that corresponds to a second
9 audio rendition, the second audio rendition manager configured to receive the
10 audio instructions and process the audio instructions to render the corresponding
11 second audio rendition, wherein the audio rendition and the second audio rendition
12 are rendered together.

13
14 **52. (original)** An audio generation system as recited in claim 49,
15 wherein the performance manager is a component object having an interface that
16 is callable by a software component.

17
18 **53. (original)** An audio generation system as recited in claim 49,
19 wherein the audio rendition manager is a component object having an interface
20 that is callable by a software component.

1 **54. (original)** An audio generation system as recited in claim 49,
2 wherein the performance manager is a component object, and wherein the audio
3 content component is a component object having an interface that is callable by
4 the performance manager.

5 **55. (original)** An audio generation system as recited in claim 49,
6 wherein the performance manager is a component object, and wherein the audio
7 rendition manager is a component object provided by the performance manager,
8 the audio rendition manager having an interface that is callable by the performance
9 manager.

10 **56-60. (canceled)**

1 **61. (currently amended)** An audio rendition manager, comprising:
2 a synthesizer component having channel groups that each have a plurality
3 of synthesizer channels configured to receive audio instructions and produce one
4 or more streams of audio wave data from the received audio instructions;

5 an additional synthesizer component having additional channel groups that
6 each have additional synthesizer channels configured to receive the audio
7 instructions and produce the one or more streams of audio wave data from the
8 received audio instructions;

9 a mapping component having mapping channels corresponding to the
10 plurality of synthesizer channels and the additional synthesizer channels, the
11 mapping component configured to receive the audio instructions from one or more
12 sources, designate the synthesizer channels and the additional synthesizer channels
13 that receive the audio instructions via the respective mapping channels, and route
14 the audio instructions to the synthesizer channels and to the additional synthesizer
15 channels; and

16 a plurality of audio buffers that receive one or more of the streams of audio
17 wave data.

18 **62-65. (canceled)**

1 **66. (original)** An audio rendition manager as recited in claim 61,
2 further comprising a multi-bus component that defines logical buses
3 corresponding respectively to the plurality of audio buffers, the multi-bus
4 component configured to receive the one or more streams of audio wave data at
5 the defined logical buses and route one or more of the streams of audio wave data
6 received at a particular logical bus to the audio buffer corresponding to the
7 particular logical bus.

8
9 **67. (canceled)**

10
11 **68. (original)** An audio rendition manager as recited in claim 61,
12 further comprising a performance manager that receives audio content from one or
13 more sources, the performance manager configured to instantiate an audio content
14 component for each source of audio content, each audio content component
15 generating event instructions from the received audio content, and wherein the
16 performance manager is configured process the event instructions to produce the
17 audio instructions.

18
19 **69. (canceled)**